

REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Status of the Claims

Claims 1-12 are pending in the present application. In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Issues under 35 U.S.C. § 102(b)

Claims 1-6, 8-9, and 11-12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Yamakawa et al. '686 (US 2002/0034686). Applicants respectfully traverse. Reconsideration and withdrawal of this rejection are respectfully requested based on the following considerations.

Yamakawa et al. '686 disclose a binder for an electrode for a lithium ion secondary battery (paragraph [0002]). As the Examiner admits, Yamakawa et al. '686 fail to disclose that the binder has two or more glass transition temperatures. However, the Examiner asserts that this feature is inherent since the structure recited in the reference is allegedly substantially identical to that of the claims.

To support an anticipation rejection based on inherency, the Examiner must provide factual and technical grounds establishing that the inherent feature *necessarily* flows from the teachings of the prior art. The inherency *must* flow as a necessary conclusion from the prior art and cannot be simply a possible one. In other words, for the Examiner to be correct, the exemplified embodiments of Yamakawa et al. '686 must have all the allegedly inherent features. Applicants respectfully submit that the inherent feature does not necessarily flow from the teachings of Yamakawa et al. '686 and that the exemplified embodiments of Yamakawa et al. '686 do not have all the allegedly inherent features.

In this regard, the number of glass transition temperatures of the polymers is determined by the production method and the structure of the polymer (for example, core-shell structure). For example, the present specification discloses that the polymer is obtained by polymerizing two or more monomers stepwise, which can give polymers having different glass transition temperatures, (pages 12-13, paragraph [0028]).

In stark contrast, in Example 2 of Yamakawa et al. '686, the monomers are polymerized at once. This method produces a polymer with just one glass transition temperature. As such, Yamakawa et al. '686 fail to disclose a binder "having two or more glass transition temperatures" as recited in claim 1.

As further evidence, enclosed herewith is a 37 CFR § 1.132 Declaration of Hidekazu Mori, one of the present inventors. The Examiner is respectfully requested to review the enclosed Declaration of Hidekazu Mori as it provides strong evidence of the patentability of the present invention. In the enclosed Declaration, an experiment is recited that shows that the polymer of Example 2 of Yamakawa et al. '686 has only one glass transition temperature.

Accordingly, the present invention is not anticipated by Yamakawa et al. '686 since the reference does not teach or provide for each of the limitations recited in the pending claims.

For completeness, Applicants also respectfully submit that Yamakawa et al. '686 do not render the present invention obvious because neither the reference nor the knowledge in the art provides any disclosure, reason, or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed.

Issues under 35 U.S.C. § 103(a)

1) Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamakawa et al. '686 in view of Kurihara et al. '096 (US 2005/0064096).

2) Claim 7 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamakawa et al. '686 in view of JP '504 (JP 2000-040504).

3) Claim 10 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Yamakawa et al. '686 in view of JP '209 (JP 04233209).

Applicants respectfully traverse, and reconsideration and withdrawal of these rejections are respectfully requested.

As discussed above, Yamakawa et al. '686 do not disclose each and every aspect of claim 1, from which claims 7 and 10 ultimately depend. Applicants respectfully submit that Kurihara et al. '096, JP '504, and JP '209 do not overcome these deficiencies.

To establish a *prima facie* case of obviousness of a claimed invention, all of the claim limitations must be disclosed by the cited references. As discussed above, Yamakawa et al. '686 in view of the other cited references fail to disclose all of the claim limitations of independent claim 1, and those claims dependent thereon. Accordingly, the combination of references does not render the present invention obvious. Furthermore, the cited references or the knowledge in the art provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

Furthermore, relevant to this § 103(a) rejection, *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966) has provided the controlling framework for an obviousness analysis, wherein a proper analysis under § 103(a) requires consideration of the four *Graham* factors. One such factor includes the evaluation of any evidence of secondary considerations (e.g., commercial success; unexpected results). 383 U.S. at 17, 148 USPQ at 467. In this regard, Applicants respectfully submit that the present invention has achieved unexpected results, whereby such results rebut any asserted *prima facie* case of obviousness. *See In re Corkill*, 711 F.2d 1496, 226 USPQ 1005 (Fed. Cir. 1985). Also, the comparative showing need not compare the claimed invention with all of the cited prior art, but only with the closest prior art. *See* MPEP 716.02(b) and 716.02(e).

According to MPEP 2145, rebuttal evidence and arguments can be presented in the specification or by way of an affidavit or declaration under 37 CFR 1.132, *In re Soni*, 54 F.3d 746, 750, 34 USPQ2d 1684, 1687 (Fed. Cir. 1995). Office personnel should consider all rebuttal arguments and evidence presented by Applicants. See, e.g., *In re Piasecki*, 745 F.2d 1468, 1472, 223 USPQ 785, 788 (Fed. Cir. 1984) (“[Rebuttal evidence] may relate to any of the *Graham* factors including the so-called secondary considerations.”). Rebuttal evidence may also include evidence that the claimed invention yields unexpectedly improved properties or properties not present in the prior art. Rebuttal evidence may consist of a showing that the claimed compound possesses unexpected properties. *In re Dillon*, 919 F.2d 688, 692-93, 16 USPQ2d 1897, 1901 (Fed. Cir. 1990).

In the enclosed Declaration noted above, Example 2 of Yamakawa et al. ‘686 was also tested as a comparative example. By using a polymer having two or more glass transition temperatures, the present invention as recited in claim 1 provides the unexpected effect of “the following can be balanced at a high level: good formability in the production of an electrode; the binding force between an active material for an electrode and a current corrector in the produced electrode; and the flexibility of the electrode” (page 12, paragraph [0027] of the present specification). This effect is not disclosed or achieved by Yamakawa et al. ‘686. In fact, in the electrode produced by using the binder of Example 2 of Yamakawa et al. ‘686, the binding force between an active material for an electrode and a current corrector is poor, and the electric double layer capacitor using the electrode has poor performance. Thus, the cited reference does not produce the results of the present invention.

Therefore, due to the unexpected results as achieved by the present invention, the rejections have been overcome for this additional reason. Reconsideration and withdrawal of these rejections are respectfully requested.

As stated in *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007), “rejections on obviousness cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” Furthermore, the mere fact that references *can* be combined or modified does not render the resultant combination obvious unless the results would have been

predictable to one of ordinary skill in the art. *Id.* As described above, Applicants have shown that the present invention achieves unexpected and unpredictable results. Thus, withdrawal of the outstanding rejections is respectfully requested.

CONCLUSION

A full and complete response has been made to all issues as cited in the Office Action. Applicants have taken substantial steps in efforts to advance prosecution of the present application. Thus, Applicants respectfully request that a timely Notice of Allowance issue for the present case.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink (Reg. No. 58,258) at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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Attachment: Executed Declaration of Mr. Hidekazu MORI